

REMARKS

The Office Action mailed November 24, 2004 has been carefully considered.
Reconsideration in view of the following remarks is respectfully requested.

Interview Record

Applicants gratefully acknowledge the courtesy and consideration extended to Applicants' undersigned representative during first and second telephone interviews with Examiner Thomas Volper conducted on September 30 and October 29, 2004.

During the first interview, language was suggested to clarify the claims and resolve an antecedent basis issue arising from the term "another" appearing in Claim 1. Further, the incorporation of the subject matter of Claim 3 into Claims 1 and 9 was agreed to, in order to overcome prior art that the Examiner alleged to exist, but which was not produced and has not been seen by Applicants.

During the second interview, the Examiner suggested further changes, which Applicants believed to be too restrictive and therefore declined.

The changes that are presented in this Response are consistent with Applicants' agreement during the first interview to clarify the claims and resolve the antecedent basis issue only. However, the change to overcome the alleged prior art—that is, incorporation of the subject matter of Claim 3 into Claims 1 and 9—has not been adopted because Applicants have decided they would like the opportunity to address any allegation of unpatentability over the prior

art. In other words, applicants believe that Claims 1 and 9 are patentable on their merits over the prior art of record, and the discussion below will provide further support for this position.

Rejection(s) Under 35 U.S.C. § 103 Rejection

Claims 1, 3 – 5 and 9 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ravishankar et al. (U.S. pat. no. 6,778,509) in view of Semper et al. (U.S. pat. no. 6,546,001). Claims 2, 6, 7, 10 and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ravishankar et al. in view of Semper et al., and further in view of applicant's allegedly admitted prior art. Claim 8 was rejected were rejected under 35 U.S.C. § 103(a) as unpatentable over Ravishankar et al. (U.S. pat. no. 6,778,509) in view of Semper et al., and further in view of Kalliokulju et al. (U.S. pat. no. 6,553,006).

Claim 1 recites:

. . . a TCP layer providing for TCP layer acknowledgments, wherein at least one TCP layer acknowledgment is buffered by the wireless MAC layer and appended to a wireless MAC layer acknowledgment of a MAC layer message.

By buffering a TCP layer acknowledgement in the wireless MAC layer, and appending it to an acknowledgement of a MAC layer message, the presently claimed invention avoids forcing the TCP layer acknowledgement to contend for the transmission session. Contention is problematic because it introduces delays and wastes bandwidth.

In Ravishankar et al., there is no discussion of appending a TCP layer acknowledgement to a MAC layer acknowledgement. Rather, in Ravishankar et al., piggybacking is of data frames with control frames to avoid unnecessary uplink access procedures. Further, Ravishankar et al. employ an “unsolicited uplink grant” procedure, wherein a determination that acknowledgements are required must be made in advance and additional uplink resources are pre-allocated. This process is complex and is in a different context from that of the invention, which seeks avoid contention by appending the TCP layer acknowledgement to a MAC layer acknowledgement.

The Office Action contends that while “Ravishankar fails to expressly disclose that the wireless MAC layer provides for MAC layer acknowledgements and that the TCP acknowledgements are appended to a MAC layer acknowledgement of another MAC layer message,” Semper “discloses that the MAC layer acknowledgements may be ‘piggybacked’ with MAC messages.” Therefore, it is alleged, it would “have been obvious to a person of ordinary skill in the art to append a TCP layer acknowledgement of Ravishankar to MAC header that contained a MAC layer acknowledgement.” According to the Office Action, the motivation for this combination is efficiency, as “it is more efficient to send a MAC layer acknowledgement with encapsulated TCP data and/or acknowledgements, rather than sending it by itself.”

Applicants respectfully contend that the above reasoning is based on impermissible hindsight. According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference

(or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.¹
(Emphasis added)

There is no motivation for combining the teachings of Ravishankar et al. and Semper et al.. The quest for efficiency is always present, and if efficiency were the motivator, as alleged in the Office Action, then either one of the references would have disclosed the means necessary to achieve it. In any case, even if combined, the presently claimed invention would not result simply because neither of these references discloses appending a TCP layer acknowledgement to a MAC layer acknowledgement in the manner claimed. The allegation that this feature would have been obvious when in fact it is not disclosed in either reference, is indefensible and fails to rise to the level necessary to establish a *prima facie* case of obviousness.

Conclusion

In view of the preceding discussion, Applicants respectfully urge that the claims of the present application define patentable subject matter and should be passed to allowance. Such allowance is respectfully solicited.


If the Examiner believes that a telephone call would help advance prosecution of the present invention, the Examiner is kindly invited to call the undersigned attorney at the number below.

¹ M.P.E.P § 2143.

Please charge any additional required fee, including those necessary to obtain extensions of time to render timely the filing of the instant Reply, or credit any overpayment not otherwise paid or credited, to our deposit account No. 50-1698.

Respectfully submitted,
THELEN REID & PRIEST, L.L.P.

Dated: 2/24/05


Khaled Shami
Reg. No. 38,745

Thelen Reid & Priest LLP
P.O. Box 640640
San Jose, CA 95164-0640
Tel. (408) 282-1855
Fax. (408) 287-8040